



HEADQUARTERS
UNITED STATES ARMY ELECTRONICS COMMAND
FORT MONMOUTH, NEW JERSEY 07703
UNITED STATES ARMY ELECTRONICS LABORATORIES

In Reply Refer To:
AMSEL-RD-N

8 MAY 1964

Director, Data Processing
Business Equipment Manufacturers Association
235 E. 42nd Street
New York, N. Y.

Dear Sir:

With the adoption by the American Standards Association of the American Standard Code for Information Interchange (ASCII) as a U. S. Standard, the Department of Defense launched a study on the configuration of a four-row keyboard using ASCII.

The DOD has been represented on the American Standards Association X4A1E Task Group on the four-row ASCII keyboard problem. Progress in this group has been understandably slow so that the DOD has been forced by the need for procurements to adopt a tentative keyboard (Inclosure 1) with the knowledge that changes very likely will be made later.

I am writing to you as Chairman of the Military Communication System Technical Standards Committee, which is charged by the Office Defense Research and Engineering with updating MIL-STD-183B on Global Communications Standards. I wish to encourage industry to do its utmost to attempt to arrive at an early solution to the ASCII keyboard problem and hope you will see fit to pass on our apprehension to industries cooperating with you in this endeavor.

The Department of Defense is getting ready to procure a large number of four-row keyboard equipments using the ASCII. We believe, however, that possible improvements from the standpoint of industry, and possibly ourselves, can be made in the keyboard of inclosure 1. We wish to procure a minimum of equipments before such changes are made and therefore hope for an early solution.

I shall appreciate your passing on to industries the desires of the Department of Defense for an early solution to the four-row ASCII keyboard problem.

Sincerely yours,

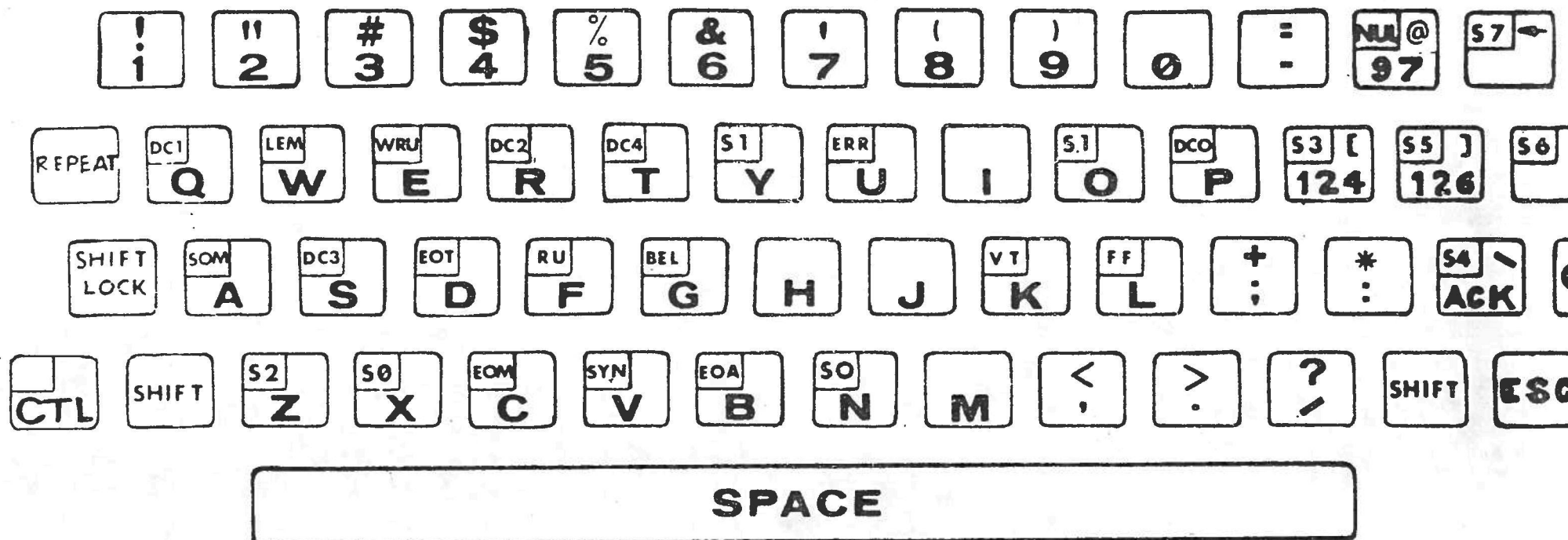
Robert S. Boykin
ROBERT S. BOYKIN
Chairman, Military Communication System
Technical Standards Committee

1 Incl
as

cc: Mr. V. G. Grey
American Standards Association
10 E. 40th St, New York, N.Y.

201-535-1818

CBI 67/1/14



FOUR ROW KEYBOARD

FIGURE 1

THIS KEYBOARD IS NOT INTENDED AS A STANDARD AND IS INCLUDED FOR INFORMATION PURPOSES ONLY

LOGIC LEGEND

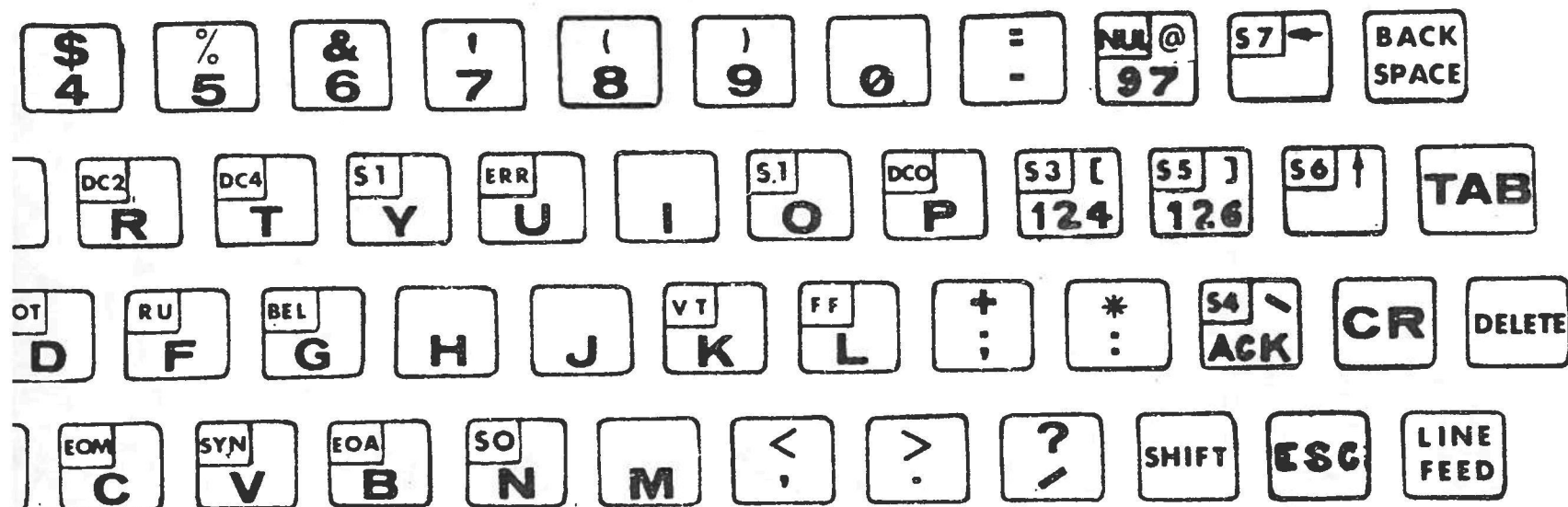
BITS
765
110
111
011
010
110
111

BITS
765
100(16 CHARACTERS)
101(16 CHARACTERS)
010(1st 12 CHARACTERS)
011(LAST 4 CHARACTERS)
000(16 CHARACTERS)
001(16 CHARACTERS)

ASSUMPTION: LOWER CASE ALPHABET WILL BE ASSIGNED BY ASA TO THE UNASSIGNED PORTION OF ASCII

NOTE: 97, 124, AND 126 ON THE @, [,] KEYS RESPECTIVELY ARE THE NUMERIC NUMBERS OF THE ASCII CHARACTERS THAT ARE STILL UNASSIGNED AFTER PLACING THE LOWER CASE ALPHABET IN THE UNASSIGNED POSITION.

1. SHIFT PRO TOP (NOT CASE OF A
2. UNSHIFT F TOP OR TH
3. CONTROL I WITHIN TI



SPACE

FOUR ROW KEYBOARD

FIGURE 1

THIS KEYBOARD IS NOT INTENDED AS A STANDARD AND IS INCLUDED FOR INFORMATION PURPOSES ONLY

ASSUMPTION: LOWER CASE ALPHABET WILL BE ASSIGNED BY ASA TO THE UNASSIGNED PORTION OF ASCII

BITS

765

100(16 CHARACTERS)
101(16 CHARACTERS)
010(1st 12 CHARACTERS)
011(LAST 4 CHARACTERS)

000(16 CHARACTERS)
001(16 CHARACTERS)

NOTE: 97, 124, AND 126 ON THE @, [,] KEYS RESPECTIVELY ARE THE NUMERIC NUMBERS OF THE ASCII CHARACTERS THAT ARE STILL UNASSIGNED AFTER PLACING THE LOWER CASE ALPHABET IN THE UNASSIGNED POSITION.

OPERATING LEGEND

1. SHIFT PRODUCES UPPER CHARACTER ON KEY TOP (NOT WITHIN SMALL SQUARE) OR UPPER CASE OF A LETTER.
2. UNSHIFT PRODUCES LOWER CHARACTER ON KEY TOP OR THE LOWER CASE OF A LETTER.
3. CONTROL (CTR) PRODUCES THE CHARACTER WITHIN THE SMALL SQUARE ON THE KEY TOP